

- sub D' 1. An apparatus for linking communicating stations within a geographical region
- in computer communication, comprising:
- a high speed backbone;
 - a plurality of branching nodes connected to the high speed backbone;
 - a plurality of communicating stations communicating over the backbone through the nodes, the nodes each housed in different buildings; and
 - the plurality of branching nodes comprising a hub directly connected with the plurality of branching nodes and directly interconnecting the plurality of communicating stations in digital communication.
2. The apparatus of claim 1, wherein the hub is largely housed out of doors within environmentally controlled housings.
3. The apparatus of claim 1, wherein the hub is powered by power from a plurality of power sources each within a separate one of the buildings.
4. The apparatus of claim 1, wherein the communicating stations comprise residences.
5. The apparatus of claim 1, further comprising a protective pedestal housing at least a portion of the nodes.
6. The apparatus of claim 5, wherein the protective pedestal is located outside and is mounted in the ground.

1 7. The apparatus of claim 5, wherein the protective pedestal is hung from power
2 line facilities.

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4 8. The apparatus of claim 1, further comprising physical security data transmitted
5 from a plurality of the individual communicating stations to a central security office over the
6 plurality of branching nodes.

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8 9. The apparatus of claim 1, further comprising a power concentrator located
9 within one or more of the branching nodes, the power concentrator receiving power from a
10 plurality of communicating stations in communication with the branching node and powering
11 the branching node with the received power, the received power being redundant, in that one
12 or more of the communicating stations can go off-line without stopping power to the
13 branching node.

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15 10. The apparatus of claim 1, further comprising a plurality of switching devices
16 communicating with the branching nodes.

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18 11. The apparatus of claim 10, wherein the switching devices are powered with
19 power from a plurality of the communicating stations.

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21 12. The apparatus of claim 11, wherein the switching devices comprise bridges,
22 repeaters, and hubs.

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24 13. The apparatus of claim 1, further comprising a home connection box having
25 quick-connect types of connectors for connecting a communicating station with a hub, the
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connectors including a network communications connector and a power connector for supplying power from the communicating station to the hub.

14. An apparatus for linking communicating stations within a geographical region in computer communication, comprising:

a high speed backbone;

a plurality of branching nodes connected to the high speed backbone;

a plurality of communicating stations communicating over the backbone through the nodes, the nodes each housed in different buildings;

the plurality of branching nodes comprising a hub directly connected with the plurality of branching nodes and directly interconnecting the plurality of communicating stations in digital communication; and

a power concentrator located within one or more of the branching nodes, the power concentrator receiving power from a plurality of communicating stations in communication with the branching node and powering the branching node with the received power, the received power being redundant, in that one or more of the communicating stations can go off-line without stopping power to the branching node.

15. The apparatus of claim 14, wherein the hub is largely housed out of doors within environmentally controlled housings.

16. The apparatus of claim 15, wherein the hub is powered by power sources emanating from a plurality of the buildings.

17. The apparatus of claim 16, wherein one or more of the communicating stations comprises a residence.

1 ~~18. The apparatus of claim 17, further comprising a protective pedestal housing~~
2 ~~at least a portion of the nodes.~~

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5 19. The apparatus of claim 18, further comprising physical security data
6 transmitted from a plurality of the individual communicating stations to a central security
7 office over the plurality of branching nodes.

8 20. The apparatus of claim 18, further comprising a home connection box having
9 quick-connect types of connectors for connecting a communicating station with a hub, the
10 connectors including a network communications connector and a power connector for
11 supplying power from the communicating station to the hub.

12
13 21. An apparatus for linking communicating stations within a geographical region
14 in computer communication, comprising:

15 a high speed backbone;

16 a plurality of communicating stations communicating over the backbone through the
17 nodes, the nodes each housed in different buildings, one or more of the communicating
18 stations comprising a residence;

19 a hub communicating with the high speed backbone and directly connected with the
20 plurality of branching nodes and directly interconnecting the plurality of communicating
21 stations in digital communication, the hub largely housed out of doors within environmentally
22 controlled housings and powered by power from a plurality of power sources each located
23 within a different one of the plurality of the buildings;

24 a protective pedestal housing the hub, the protective pedestal located out of doors;

25 a power concentrator located within one or more of the branching nodes, the power
26 concentrator receiving power from a plurality of communicating stations in communication

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1 ~~with the branching node and powering the branching node with the received power, the~~
2 ~~received power being redundant, in that one or more of the communicating stations can go~~
3 ~~off-line without stopping power to the branching node, and~~

4 a home connection box having quick-connect types of connectors adapted to connect
5 a communicating station with the hub, the connectors including a network communications
6 connector and a power connector for supplying power from the communicating station to the
7 hub.

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